Huanglongbing, or Citrus Greening

Citrus greening—a disease caused by a bacterium that can infect most citrus varieties and some ornamental plants—was first detected in the United States in August 2005 in Miami-Dade County, FL. The disease has seriously impacted citrus production in all countries where it has become established. Transmitted primarily by an insect called the Asian citrus psyllid, the disease jeopardizes U.S. citrus production—including both commercial and residential fruit-bearing trees and ornamental citrus plants.

Figure 1

USDA, *Hilda Gomez*

Identification of Citrus Greening and the Asian Citrus Psyllid

1. Foliage: Early symptoms are small, yellowed leaves on one limb or section of the tree canopy. The most characteristic symptoms of citrus greening are blotchy mottling of the leaves (fig. 1) and leaf yellowing (fig. 2). Other symptoms are yellowed shoots, twig dieback, poor flowering, and stunting.

Figure 2

University of Florida-IFAS, Jamie Yates

2. Fruit: Fruit are small, poorly colored, and/or lopsided (fig. 3). Fruit from trees affected by citrus greening taste bitter, medicinal, and sour. Seeds usually abort, and fruit set (formation) is poor. Symptoms vary according to time of infection, stage of the disease, tree species, and tree maturity.

3. Insect Associates: The Asian citrus psyllid *(Diaphorina citri)* is the insect most closely associated with the spread of citrus greening. Figure 4 depicts nymphs and figure 5, adults.

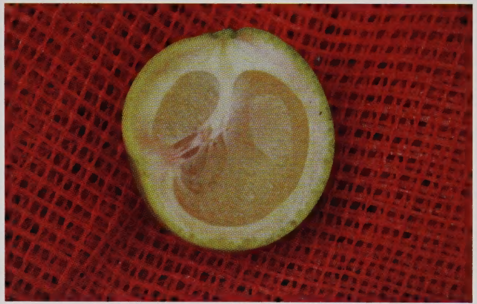

Figure 3

University of Florida-IFAS, Jamie Yates

To learn more about citrus greening, please visit **www.SaveOurCitrus.org** or **www.aphis.usda.gov/citrusgreening.**

Figure 4

USDA, R. Anson Eaglin

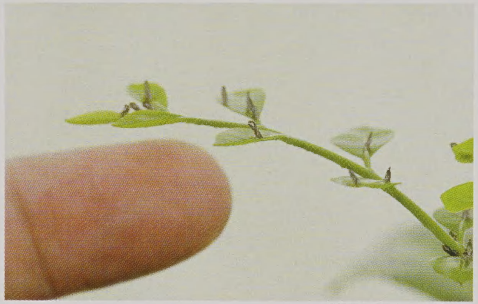

Figure 5

USDA, R. Anson Eaglin

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